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**Remarks** 

Applicants respectfully request reconsideration of the above-identified application. Claims 1-18 and 20-33 remain in this application. Claim 19 was canceled. Claims 2-4, 6-7, 9-11, 17-18, 23-24, and 32-33 have been withdrawn.

## I. Rejection based on art.

Claims 1, 5, 8, 12-16, 20-22, and 25-31 were rejected under 35 U.S.C. §103(a) as obvious in view of U.S. Patent 3,698,993 to Rauh combined with U.S. Patent 3,253,947 to McCluer.

Applicants respectfully traverse. The invention as recited in claim 1 is not obvious because of objective evidence of non-obviousness. The "weight law" was the basis in the Office action for combining Rauh with McCluer. Yet at the levels of particle loading in the foam of the present invention as recited in claim 1, the "weight law" does not appear to hold.

Rauh teaches 600 weight parts of particles per 100 weight parts of thermoplastic polymer. (Column 3, lines 10-13; column 1, lines 15-16.) This amount is twelve times greater than the amount recited in claim 1 of the present application.

To supplement this shortcoming, the Office action cited McCluer as teaching the "weight law of general relationships between material weight, sound transmission loss and frequency." (Office action mailed March 30, 2006 at page 3.) In fact, McCluer teaches that the "flexible material products of the [McCluer] invention very nearly exactly follow the weight law for sound transmission loss." (Col. 7, lines 15-21.)

The weight law is illustrated in Figure 1 of McCluer, which shows that at a given frequency, an increase in the area density of the sound attenuating material increases the sound transmission loss. For example, at the frequency of 350 Hz, an increase in the area density from 0.5 lbs/ft2 (227 grams/ft2) to 2.8 lbs/ft2 (1,270 grams/ft2) increased the sound transmission loss from 10 dB to about 25 dB.

However, Table 1 of the present application illustrates results surprisingly contrary to those predicted by the "weight law." Examples 1, 2, and 3 have area densities of 38, 59, and 56 grams/ft2, respectively, per 100 wt. parts LDPE foam. The area density of these

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examples are all less than the 61 grams/ft2 area density of the Comparative 1 sample. Yet the sound transmission loss (STL) at a given frequency (from 40 to 1,000 Hz) for each of these Examples is about the same as the STL for the Comparative 1 sample having a higher area density.

Thus, the basis for the combination of Rauh with McCluer – the "weight law" – unexpectedly failed to reliably predict the performance, and therefore is not an acceptable basis for combining McCluer with Rauh to arrive at the invention as presently claimed.

Further, one of the requirements of a *prima facie* case of obviousness is that the applied prior art reference must teach or suggest *all* of the claim limitations. MPEP §706.02(j). A claimed invention is not obvious in view of a combination of references that does not teach or suggest all of the claim recitations. MPEP §2143.03.

With respect to dependent claim 8, neither Rauh nor McCluer teach or suggest mica as a particle as recited in claim 8. Rauh teaches "metallix oxides, iron oxide, lead oxide, barium sulfate." (Col. 3, lines 37-40.) McClue teaches lead and lead oxide particles. (Col. 3, line 5.)

The Office action takes the position that because Rauh teaches the genus of metallic oxide that Rauh also teaches the species of mica because "metallic oxide" reads on "mica." (Office action mailed March 30, 2006 at page 3.) However, anticipation of a species by a disclosed genus requires that the species be "at once envisaged" by the genus disclosure. *See* MPEP § 2131.02.

In the present situation, there are far too many species in the genus of metallic oxides for the genus of "metallic oxide" to cause "mica" to be at once envisaged. See, for example, attached Appendix I, which list numerous metallic oxides copied from http://www.galleries.com/minerals/oxides/class.htm (August 25, 2006).

And assuming that the term "metallic oxide" could be fairly stretched to read on "mica" leads to the result that the term "metallic oxide" must also read on the genus "silicates" of which mica is but one example. "The silicates are the largest, the most interesting and the most

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complicated class of minerals by far." (http://www.galleries.com/minerals/silicate/) (August 25,

2006). Please see Appendix II for a list of numerous silicates copied from that website.

Further, "some motivation to select the claimed species or subgenus must be

taught by the prior art." MPEP §2144.08 II.A.4.(a). The Office action does not point to any

motivation to select mica based on the disclosure of metallic oxide.

Turning to dependent claim 21, the combination of Rauh and McCluer fails to

teach or suggest an area density of from about 10 to about 100 g/ft2 as recited in dependent claim

21. The foam of Rauh would be expected to have a higher area density than this range at least

because of the far higher particle loading taught by Rauh. And the lowest area density for the

material taught by McCluer appears to be 0.5 lbs/ft2 (i.e, 227 grams/ft2) - far higher than the

recited range of claim 21.

The other rejected dependent claims contain recitations in addition to those of the

independent claim from which they depend, and are therefore further patentable over the

combination of Rauh and McCluer.

II. Conclusion

In view of the amendment to the specification and these remarks, it is respectfully

submitted that the present application is in condition for allowance. A notice to that effect is

earnestly and respectfully requested.

Respectfully submitted,

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